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# Actuarial Cost Estimate: Montana Senate Bill 234 An Act Requiring Insurance Coverage for Autism Spectrum Disorders

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# **Cost Estimates**

# **Base Cost Estimates**

The table below summarizes our "Middle" scenario annual cost estimates and premium increases on a per covered person basis, and as a percentage of the annual premiums for each market. Our "Middle" estimate is that in the long-term, the premium increase associated with the mandated benefits provided by SB 234 would be about 0.33% of insured premiums assuming that the small group and large group private insurance markets are covered by the Bill. However, we note that costs could be lower in the years immediately following the passage of the mandate due to the limited supply of ABA therapists.

The estimated cost increases for the small group and large group markets are shown in the table below. The annual claim cost per covered person estimate of \$10.80, and premium increase of \$12.70 are in 2009 dollars.

	Market		
1	Small Group	Large Group	All
Covered Persons		83,000	173,000
Average Premium per Person		\$3,900	\$3,796
Annual Mandate Claim Cost per Covered Person	10.80	10.80	10.80
Claim Cost as a Percentage of Premium	0.29%	0.28%	0.28%
Estimated Premium Increase with Admin @ 15%		12.70	12.70
Premium Increase as a Percentage of Premium		0.33%	0.33%

# Scenario Estimates

As discussed in Section 1, very little insurance data exists that can be used to directly estimate the costs of ABA benefits mandated by SB 234. This causes uncertainty in developing actuarial assumptions and cost estimates. Due to this uncertainty, it is useful to develop cost estimates for additional scenarios using more optimistic and pessimistic assumptions.

Cost estimates are very sensitive to various assumptions, especially those related to ABA utilization and costs for children 8 and under who have the higher benefit caps. Therefore, we varied our assumptions for these children 8 and under to develop estimated costs for ASD services under "Low," "Middle," and "High" cost scenarios, as shown in the table below:

	Scenario	% Diagnosed Under Age 6 Starting ABA	Avg. Annual 8 & Under ABA Program Cost	Avg. Annual 8 & Under non-ABA Cost	Annual Premium Increase per Person	Premium Increase (% of Premium)
İ	Low	40.0%	\$30,000	\$1,950	\$9.50	0.25%
1	Middle	50.0%	\$40,000	\$2,925	\$12.70	0.33%
ı	High	66.7%	\$46,969	\$3,900	\$16.90	0.45%

# Short-Term Cost Estimates by Scenario

In addition to the uncertainty associated with long-term cost estimates, how quickly costs could reach their ultimate level due to the limited supply of ABA therapists is also uncertain. We have provided the table below to illustrate the potential short-term increases in premiums, and how they could grade into the long-term estimates over time.

Estimated Increase in Premiums due to SB 234 by Year						
Scenario	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and Beyond
Low	0.08%	0.12%	0.15%	0.18%	0.22%	0.25%
Middle	0.17%	0.20%	0.23%	0.27%	0.30%	0.33%
High	0.30%	0.33%	0.36%	0.39%	0.42%	0.45%

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# **Comments on SB 234 Fiscal Note**

SB0234 fiscal note dated 2/20/2009 (the fiscal note) is deficient to such a degree that it should not be considered when assessing the potential fiscal impact of Senate Bill 234. Our basis for coming to that conclusion is as follows:

- 1. Assumption 4 indicates a prevalence estimate of 1 in 150 for all ages. Because the average age of diagnosis is typically 3 to 4 years old, assuming that very young children will be diagnosed and treated for ASD leads to inflated cost estimates. The fact that the majority of the cost associated this bill is for children ages 0-8 due to the benefit caps magnifies the impact of this unreasonable assumption. Including an age at diagnosis assumption should reduce cost estimates of 0-8 year olds by 30% to 40%.
- 2. Assumption 4 employs a 1 in 150 treated prevalence assumption for ASD which likely overestimates the treated prevalence in Montana. As noted on page 6 of this report, Montana has one of the lowest rates of autism per IDEA Part B child count data in the nation. It is unlikely that the treated ASD prevalence underlying the fiscal note cost estimates would be so much higher than the rate of autism identified in the education system, especially in the short-term.
- 3. Assumption 17 mischaracterizes how the Oliver Wyman ABA unit cost estimates were developed. The fiscal note states:

"Based on this data, they [Oliver Wyman] developed an average cost per hour of ABA services based on Bureau of Labor Statistics health care wage data. This amount was determined to be \$45.45 per hour for all ABA services...(Note: BLS health care wage data will understate any estimate of commercial reimbursement. BLS data is a composite of wage data derived from multiple payers such as Medicaid, Medicare, private pay, and commercial insurance as well as uncompensated care. Typically commercial insurance pays for health care services

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at rates well above those reimbursed by Medicaid or Medicare. Even so, using the \$45.45 per hour rate, most children will reach the benefit caps."

This mischaracterizes the development and calls into question the reasonableness of Oliver Wyman's unit cost assumptions. In reality, the hourly rates were based on actual and expected reimbursement rates for commercially insured ABA programs and take into consideration differences in reimbursement rates by payer. Because the comments in the fiscal note are factually incorrect, they should be ignored.

4. Assumption 17 comments assume that the Oliver Wyman's Montana analysis is based on Virginia data and information. It is unclear why the fiscal note contains the following factually incorrect comment:

"They [Oliver Wyman] noted that this amount may be highly variable since their model is based on Virginia legislation that calls for the majority of the mandated benefits to be for applied behavioral analysis."

Our Montana analysis is based on the estimated costs of the additional mandated benefits under SB 234 as written. These costs will be primarily for ABA services based on any reasonable assessment of the bill. In analyzing costs for SB 234 and similar bills mandating ABA and other ASD services, all professional analyses have concentrated on ABA costs since they are expected to drive the additional incremental ASD benefit costs. The often cited Ganz study: *The Lifetime Distribution of the Incremental Societal Costs of Autism* (report available at http://archpedi.ama-assn.org/cgi/reprint/161/4/343) shows that approximately 80-90% of direct medical expenses for children under 18 with ASD are for behavioral therapies- see Table 2 on page 346 of the study report.

# 5. Assumption 17 states:

"For non-ABA services, HCBD has actual usual and customary fees (U&C) by provider type listed under assumption #19 below. These are not estimates and will be used in calculating unit costs for non-ABA therapy."

This comment is misleading. While the UCR amounts likely come from an actual source, the actual service costs developed based on these unit costs cannot be considered anything but estimates of the costs for the noted services based on the unit cost and utilization estimates contained in the fiscal note. Actual hourly reimbursement amounts will certainly be different than the UCR amounts in the fiscal note, and would likely be lower. It is curious why the fiscal note would reference UCR amounts when actual costs for these services would be available upon review of the State's own claim data.

# 6. Assumption 21a) states:

"Using the actual distribution of state employee group benefit children by age, the OWAC model estimates that 34% of eligible children (20 of 59 children from assumption #3 above) will utilize an ABA program."

This is not true. Our model does not estimate that 34% of eligible children (20 of 59 children from fiscal note assumption #3) will utilize an ABA program. When considering the age at diagnosis assumptions (which the fiscal note likely has not done based other assumptions in the fiscal note) and ABA utilization by age, our modeling indicates a much lower overall utilization percentage for each cost scenario, and on average our modeling would indicate utilization of approximately half of the 34% indicated.

# 7. Assumption 22 states:

"OWAC had substantial difficulty in estimating the utilization of non-ABA services. They created a specific estimate for the State of Virginia 'based upon studies of medical costs for ASD children and judgment regarding the increase in costs that could be expected due to the mandated benefits' based on specific historical claim experience for Virginia. When those assumptions were applied to Montana specific data, it was very inaccurate compared to known historical claims expenditures."

### Assumption 22 needs to be refuted for several reasons:

- a. The statement "OWAC had substantial difficulty in estimating the utilization of non-ABA services" is factually incorrect. Developing incremental cost estimates for services that were never covered does result in uncertainty in the estimation process, but that does not mean that OWAC had substantial difficulty in developing them.
- b. The studies referenced are cited in Footnote 12 on page 11 of this report, they include analyses of medical costs from various geographical areas which we used to develop an assumption that, based on current typical coverages, ASD children will incur covered medical expenses that are approximately three times those of the average child. For our three cost scenarios, we assume that the incremental non-ABA costs mandated by the Bill would be an additional 50 to 100% of our estimate of the cost of currently covered medical services for ASD children in Montana.
- c. The statement "When those assumptions were applied to Montana specific data, it was very inaccurate compared to known historical claims expenditures" is incorrect on its face. There is no Montana specific data related to the costs of benefits that are not covered and therefore, there cannot be "historical claims expenditures." The fiscal note essentially uses made up utilization statistics and estimated unit costs that likely do not reflect the actual unit costs for the State plan to develop cost estimates. To

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be clear, there are no estimates in the fiscal note that are based on actual Montana claims experience.

8. Assumption 23 references the Abt report to the Pennsylvania Healthcare Cost Containment Council. This report is available at <a href="http://dhhs.nv.gov/autism/TaskForce/2008/ATF\_Report\_08/Appendix%20F.pdf">http://dhhs.nv.gov/autism/TaskForce/2008/ATF\_Report\_08/Appendix%20F.pdf</a>.

The Abt report also states in its conclusion on page 51: "In summary, the evidence submitted to the Pennsylvania Health Care Cost Containment Commission is sufficient to evaluate the impact of the HB 1150 mandate. The analyses and research papers support a finding of marginal premium increase costs of approximately \$1 PM/PM attributable to the ASD benefit. These cost increases are modest relative to: ongoing insurance cost increases; estimated cost offsets for families and the Commonwealth; and better results for children and youth with ASD. The clinical and cost effectiveness research studies provided indicate that improvements in clinical and role functioning and quality of life can be anticipated for those children and youth with ASD who use evidence based behavioral therapies, including Applied Behavioral Analysis."

It is unclear why the fiscal note would choose to highlight various pieces of information from this Abt report related to utilization of non-ABA services that may or may not have anything to do with estimating the <u>incremental</u> costs of the mandated services since many of the services referenced in Assumption 23 are probably currently covered to some degree in the State programs. The fiscal note highlights specific, detailed information, but completely ignores the conclusion of the 55 page report.

- 9. Assumption 25 shows a table with the comment "The OWAC model estimates that the children with PDD-NOS will not access ABA services." This comment is incorrect, we assume those children diagnosed with PDD-NOS will utilize services at the same rate as other children diagnosed with ASD.
- 10. Assumption 26 includes an incremental cost for hospitalization, while we do not have sufficient information to determine this with certainty, it is likely that a hospitalization like the one referenced would be covered under the current health plan.
- 11. Assumption 27 includes a trend estimate for medical and prescription drugs. The trend should actually be based on the expected increase in the \$50,000 and \$20,000 benefit caps. The Bill as written does not appear to include a mechanism to adjust these caps, so the trend factor should be 0% given the assumptions used in the fiscal note.
- 12. Assumptions 31-44 for Montana University System have the same problems as those noted in 1-11 above.

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We believe more reasonable estimates of the fiscal impact could be made by applying the percentages in the "Estimated Increase in Premiums due to SB 234 by Year" on page 14 of this report to the expected annual plan expenditures for the currently employed state workers. We would expect that costs associated with SB 234 for retirees would be minimal due to the fact that they would have very few children 18 or under.